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AGO ltr 29 Apr 1980

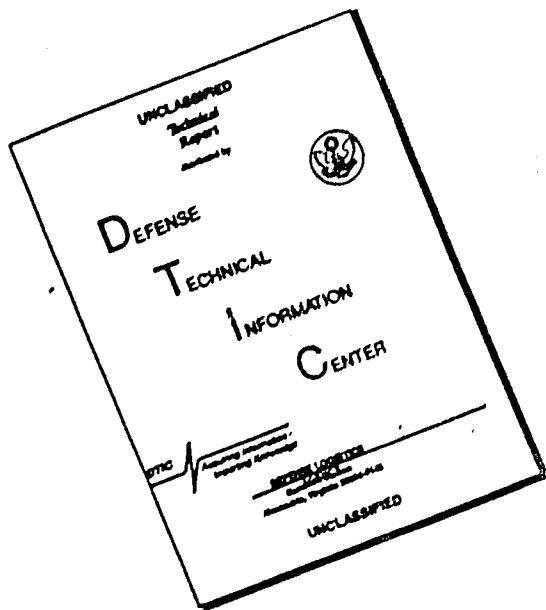
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AGDA (M) (11 Jan 71) FOR OT UT 703227

13 January 1971

SUBJECT: Operational Report - Lessons Learned, Headquarters, 864th Engineer Battalion, Period Ending 31 July 1970

SEE DISTRIBUTION

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2. Information contained in this report is provided to insure appropriate benefits in the future from lessons learned during current operations and may be adapted for use in developing training material.

BY ORDER OF THE SECRETARY OF THE ARMY:

*Kenneth G. Wickham*

KENNETH G. WICKHAM  
Major General, USA  
The Adjutant General

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DEPARTMENT OF THE ARMY  
HEADQUARTERS, 864TH ENGINEER BATTALION (CONST)  
APO 96317

EGACBC-3

15 August 1970

SUBJECT: Operational Report of 864th Engineer Battalion (Construction)  
for Period ending 31 July 1970, RCS CSFOR-65 (R1)

THRU: Commanding Officer  
35th Engineer Group (Construction)  
APO 96312

Commanding General  
18th Engineer Brigade  
ATTN: AVBC-C  
APO 96377

Commanding General  
United States Army, Vietnam  
ATTN: AVHGC (DST)  
APO 96307

Commander in Chief  
United States Army, Pacific  
ATTN: GPOP-DT  
APO 96588

TO: Assistant Chief of Staff for Force Development  
Department of the Army (ACSFOR DA)  
Washington, D. C. 20310

1. Operations: Significant Activities.

A. General

The battalion's organization has been returned to that of a standard construction battalion in the last quarter (Incl 1). The 610th Engr Co

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(CS), the 553rd Engr Gp (EB) and C/19th Engr Bn (Cbt) were detached from the battalion and assigned to other units. The battalion then started a unit consolidation in the Phan Thiet area. Delta Company moved from Khanh Duong to Whiskey Mountain, First Construction Platoon of Bravo Company moved from Dong Ba Thin to LZ Betty at Phan Thiet; the Battalion Headquarters moved from Nha Trang to Phan Thiet. The remainder of Bravo Company was attached to the 19th Engr Bn (Cbt) to supplement their LOC construction capability during the completion of QL-21. The battalion is continuing to put the major portion of its effort on construction of QL-1 from Phan Thiet to Ap Long Lam. Due to the recent unit moves and the enlarging of the Whiskey Mountain Compound to include Delta Company and a large portion of Headquarters staff the amount of effort expended on base construction has risen to approximately 25%. The operational support missions continue to consume approximately 5% of the battalions effort.

B. Commanders and Principal Staff

Bn CO	1 May 70 - 31 Jul 70	LTC Jack W Martin
Bn XO	1 Feb 70 - 31 Jul 70	Maj Raymond G McDowell Jr.
S-1	1 May 70 - 31 Jul 70	1LT Paul F Segert
S-2/3	1 May 70 - 31 Jul 70	Cpt Theodore W Yates
S-4	1 May 70 - 31 Jul 70	Cpt James H Traxler
Bn Surgeon	1 May 70 - 31 July 70	Cpt Luther R Boone
Bn Comm Officer	1 Feb 70 - 31 Jul 70	1LT John F McAuliffe
Task Force Whiskey CO	1 May 70 - 15 Jun 70	Maj William T Cooper Jr.
Task Force 21 CO	1 May 70 - 15 Jun 70	Maj Richard E. Works
CO, HHC	1 May 70 - 27 Jul 70 28 Jul 70 - 31 Jul 70	Cpt Robert B Pitzschler Cpt James H Traxler
CO Co A	1 May 70 - 31 July 70	Cpt Peter L Johnson
CO Co B	1 May 70 - 31 July 70	Cpt Charles W Jones
CO Co C	1 May 70 - 15 Jul 70 15 Jul 70 - 31 Jul 70	Cpt Ruford C Murphree 1LT David J Gumbley
CO Co D	1 May 70 - 5 Jun 70 5 Jun 70 - 31 Jul 70	Cpt Washburn Cpt John W Guinn III
CO 610th Engr Co (CS)	1 May 70 - 15 Jun 70 Lost company on 15 Jun to 19th Engr Bn	Cpt Gregory C Peck Cpt Giuliano M Toneatto
CO 73rd Engr Co (CS)	1 May 70 - 31 Jul 70	Cpt David M Folger
CO 553rd Engr Co (EB)	1 May 70 - 15 Jun 70 Lost company on 15 Jun 70 to 19th Engr Bn.	Cpt John H Cochran Jr.
CO Co C 19th Engr Bn (CS)	1 May 70 - 15 Jun 70 Lost company on 15 June to 19th Engr Bn.	

C. Company Narratives

1. Company A

The primary mission of this unit was the production of various size

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aggregate for use on the LOC program. Over 43,000 cu of rock was quarried and crushed for base course and asphalt aggregate. The secondary mission was the providing of special equipment for LOC construction such as extra dozers, compaction equipment and other earthmoving equipment.

2. 1st Platoon Company B

The primary mission of this unit was base camp construction at the Dong Ba Thin Post. The unit moved to LZ Petty in Phan Thiet the beginning of June where they again picked up the mission of base camp construction assisting the battalion in the relocation to Phan Thiet.

3. Company C.

The major effort of this unit during the reporting period has been the construction of National Highway QL-1 from Ap Long Lm to Phan Thiet. This work involved the installation of culverts, widening the existing roadway and placing subbase and base course in preparation for paving. Approximately 20% of the units effort was expended upon base camp construction to include such things as the construction of maintenance buildings, latrines, improvement of the mess hall and field fortifications. Operational support absorbed 5% of the mission effort working on an LST Ramp, and repairing of Phan Thiet Airfield.

4. Company D

This unit worked in two AOR's this period. The first half of the period the unit was in Khanh Duong constructing QL-21. Their primary mission was constructing bridges along with supporting construction by hauling base course and asphalt. They then moved to Whiskey Mountain, where they supported C Company on construction of QL-1, and assumed base course construction.

5. 73rd Engr Co (CS)

The primary mission of the unit was the production and placement of asphalt on QL-1. Simultaneously a soils stabilization is being setup at the Whiskey Mountain Industrial complex. Also equipment support is being given to A Company for quarry operations.

II. Lessons Learned

A. Personnel

1. Unit Strength

a. Observation: An analysis of gains and losses of personnel in the battalion shows that gains totaled 228 and losses 266. This resulted in a net loss of 38.

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b. Evaluation: A true evaluation of the figures can not be made, as they include gains and losses in units which are no longer under the operational control of this headquarters. Although this was an overall net loss of 38 personnel the Battalions assigned strength vs authorized strength at the end of the period was 807 vs 758.

c. Recommendations: None.

## B. Operations

### 1. Quarry Drainage:

a. Observation: During development of the quarry continuous running springs were found as we developed faces and benches.

b. Evaluation: This can lead to difficulty in crushing operations if the soil that is mixed with the blast rock becomes saturated.

c. Recommendation: If the last row of holes on the bench parallel to the toe of the face are drilled deeper and loaded heavy at the bottom a ditch is left after each blast which will direct the water along the toe of the face and then out at the side of the quarry floor.

### 2. Cutting edges for Hough 6 cu yd loader Model H120C.

a. Observation: Standard cutting edges for the loader were unavailable through the supply system.

b. Evaluation: An acceptable substitute was needed to prevent damage to the 6 yd bucket of the loader.

c. Recommendation: If cutting edges are not available for the Hough H120C, the cutting edge for a Caterpiller D-7E dozer makes an acceptable substitute. The D-7E cutting edge is cut to fit the sides and bottom of the 6 cu yd bucket and then welded in place. If the bucket is worn, care must be taken to insure that the back of the new cutting edge is flush with the bottom of the bucket and then using an arc welder the area between the bucket and the cutting edge must be filled with weld. These new cutting edges have been in use for over a month with this unit and have been completely satisfactory for loading blast rock.

### 3. Road Construction During Monsoons.

a. Observation: Rice paddies are flooded and equipment can't be supported on the paddy when widening existing roadway.

b. Evaluation: Firm bearing is necessary to operate track and rubber tired equipment.

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c. Recommendations: That quarry blastrock be hauled with 5 ton dumps, dumped over existing shoulders in a one foot lift and a D-7E bench the existing shoulders using the blast rock as bearing and widened road to the toe of the new slope. 5 ton dumps can then be utilized to haul fill until a 290m can be supported on the widened sections of the road.

4. Changing Tires on the 290m.

a. Observation: When the air compressor on the 290 tractor is used for pumping up the tire difficultv can result in getting a good seal.

b. Evaluations: A larger CPM air compressor should be used.

c. Recommendations: A 250 CPM or 600 GPM air compressor can be used. The plug is removed where sodium chloride is inserted for ballast. The 250 CPM or 600 CPM compressor is connected to the opening and the tire and rim are sealed due to the higher pressure.

5. Expedient Road Surface

a. Observation: Track vehicles have been tearing up bypasses due to the amount of turning required.

b. Evaluation: A method is needed to stabilize the road surface to prevent track vehicles from tearing up road surface.

c. Recommendation: Use salvaged sections of railway ties and rails and lie them upside down in roadway. Fillin between the ties with small aggregate or sand. This forms a cordonoy road which won't be quickly torn up by heavy track vehicles.

D. Intelligence

1. Security of Live-In/Fight-In Bunkers.

a. Observation: Standard construction of live-in/fight-in bunkers give excellent protection from outside attack by enemy ground forces but are somewhat susceptable to attack from the rear by sappers.

b. Evaluation: A method of protecting the rear of the bunkers from sappers was needed.

c. Recommendation: To further protect the bunkers in case of sappers penetrating the wire and making their way into the compound, horseshoe shaped emplacements have been constructed at the rear corners of the live-in/ fight-in bunkers. In case of attack, one man goes to each of the two positions. This gives them an excellent view of the rear of the

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bunker and a well protected position to defend the rear from sappers.  
The positions can be easily constructed with a single row of drums  
filled with earth and firing ports built with sandbags.

- E. Logistics: None.
- F. Organizational: None.
- G. Other: None.

1 Incl  
as

*Phillip D. Engle*  
PHILLIP D. ENGLE  
LTC CE  
Commanding

EGA-CO (31 July 1970) 1st Ind

SUBJECT: Operational Report - Lessons Learned, 164th Engineer Battalion  
(Construction), Period Ending 31 July 1970, RCS CSFOR-65 (R1).

DA, Headquarters, 35th Engineer Group (Const), AFN 06312, 24 August 1970.

TO: Assistant Chief of Staff for Force development, Department of the  
Army (ACSFOR), Washington, D.C. 20310.

This Headquarters has reviewed the Operational Report-Lessons Learned  
for the quarterly period ending 31 July 1970 from the 164th Engineer  
Battalion (Construction) and concurs with the comments and observations  
of the commander.

  
RICHARD A. CHIDLAW  
CCL CE  
Commanding

AVBC-CG (31 July 1970) 2nd Ind  
SUBJECT: Operational Report - Lessons Learned, 864th Engineer Battalion  
(Construction), Period Ending 31 July 1970, RCS CSFOR-65 (R2)

DA, HEADQUARTERS, 18TH ENGINEER BRIGADE, APO 96377 18 SEP 1970

TO: Commanding General, US Army Vietnam, ATTN: AVHGC-DST, APO 96375

1. This headquarters has reviewed the Operational Report - Lessons Learned for the 864th Engineer Battalion (Construction), as indorsed by the 35th Engineer Group (Construction). The report is considered to be an accurate account of the Battalion's activities during the reporting period.
2. This headquarters concurs with the observations and recommendations of the Battalion and Group Commanders.

  
H. C. SCHRADER  
Brigadier General, USA  
Commanding

AVCC-4D ( 31 Jul 70 ) 3rd Ind

SUBJECT: Operational Reports - Lessons Learned for 864th Engineer Battalion  
(Construction), for the Period Ending 31 July 1970, RCS CSFOR-65 (R2)

DA, HQ, US Army Engineer Command Vietnam (Prov), APO 96491

TO: Commanding General, United States Army Vietnam, ATTN: AVHGC-DST,  
APO 96375

Subject report is under review in this Headquarters. Comments for  
inclusion in the Headquarters, USARV indorsement to CINCUSARPAC will  
be forwarded to your Headquarters by separate cover.

FOR THE COMMANDER:



ROBERT E. SHEA  
CPT, AGC  
Assistant Adjutant

AVHDO-DO (15 Aug 70) 4th Ind

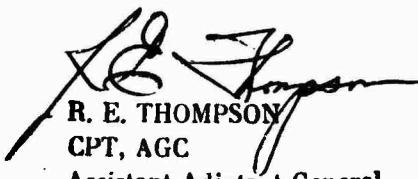
SUBJECT: Operational Report of 864th Engineer Battalion (Construction)  
for Period ending 31 July 1970, RCS CSFOR-65 (R1)

Headquarters, United States Army Vietnam, APO San Francisco 96375 14 OCT 1970

TO: Commander in Chief, United States Army Pacific, ATTN: GPOP-DT,  
APO 96558

This Headquarters has reviewed the Operational Report-Lessons Learned  
for the quarterly period ending 31 July 1970 from Headquarters, 864th  
Engineer Battalion (Construction) and comments of indorsing headquarters.

FOR THE COMMANDER:



R. E. THOMPSON  
CPT, AGC  
Assistant Adjutant General

Cy furn:  
USAECV(P)  
864th Engr Bn

GPOP-DT (15 Aug 70) 5th Ind

SUBJECT: Operational Report-Lessons Learned, HQ 864th  
Engineer Battalion (Construction), for the Period  
Ending 31 July 1970, RCS CSFOR-65 (R2)

HQ, US Army, Pacific, APO San Francisco 96558 2 NOV 1970

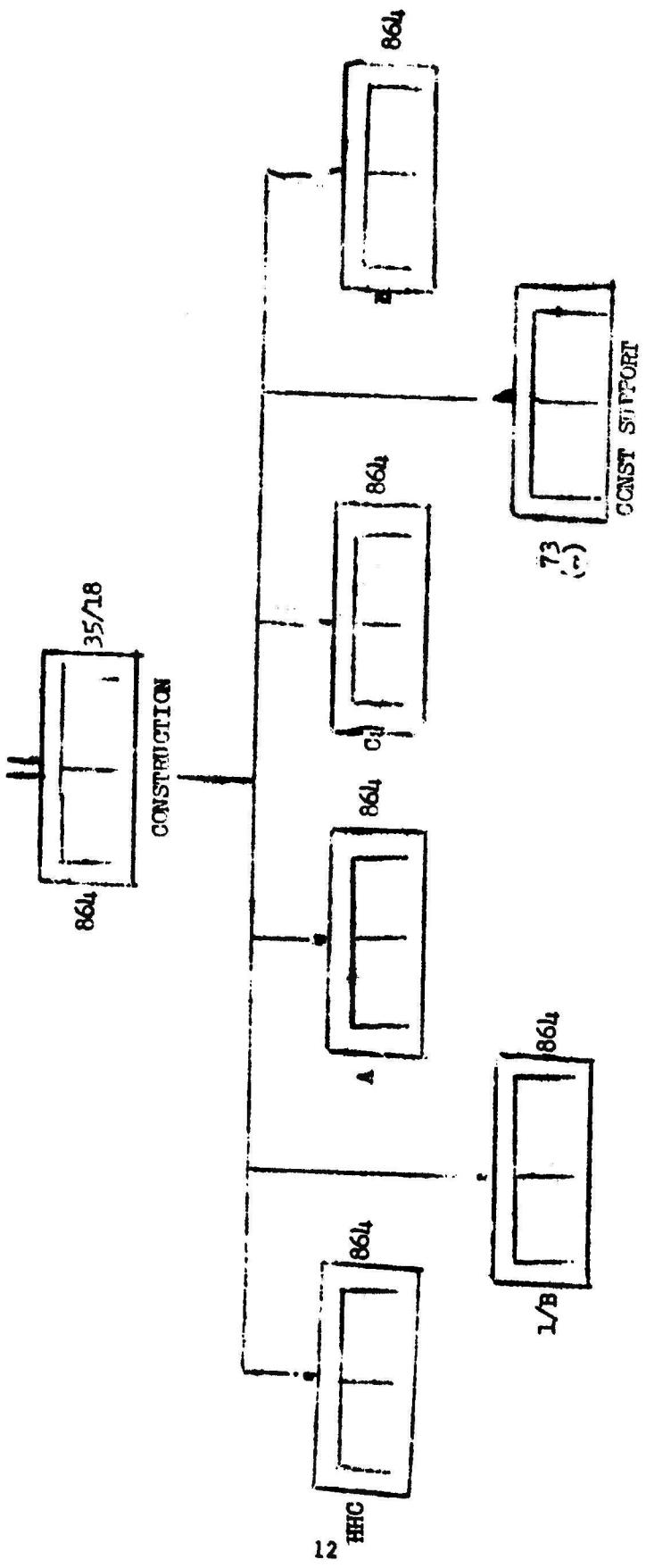
TO: Assistant Chief of Staff for Force Development, Department  
of the Army, Washington, D. C. 20310

This headquarters concurs in subject report as indorsed.

FOR THE COMMANDER IN CHIEF:

*GR McLaughlin*  
G. R. McLAUGHLIN  
COL, AGC  
Adjutant General

ORGANIZATIONAL STRUCTURE 864TH ENGR BN (CONSTR)



Inclosure # 1

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